



the **ILLINOIS ENGINEER**



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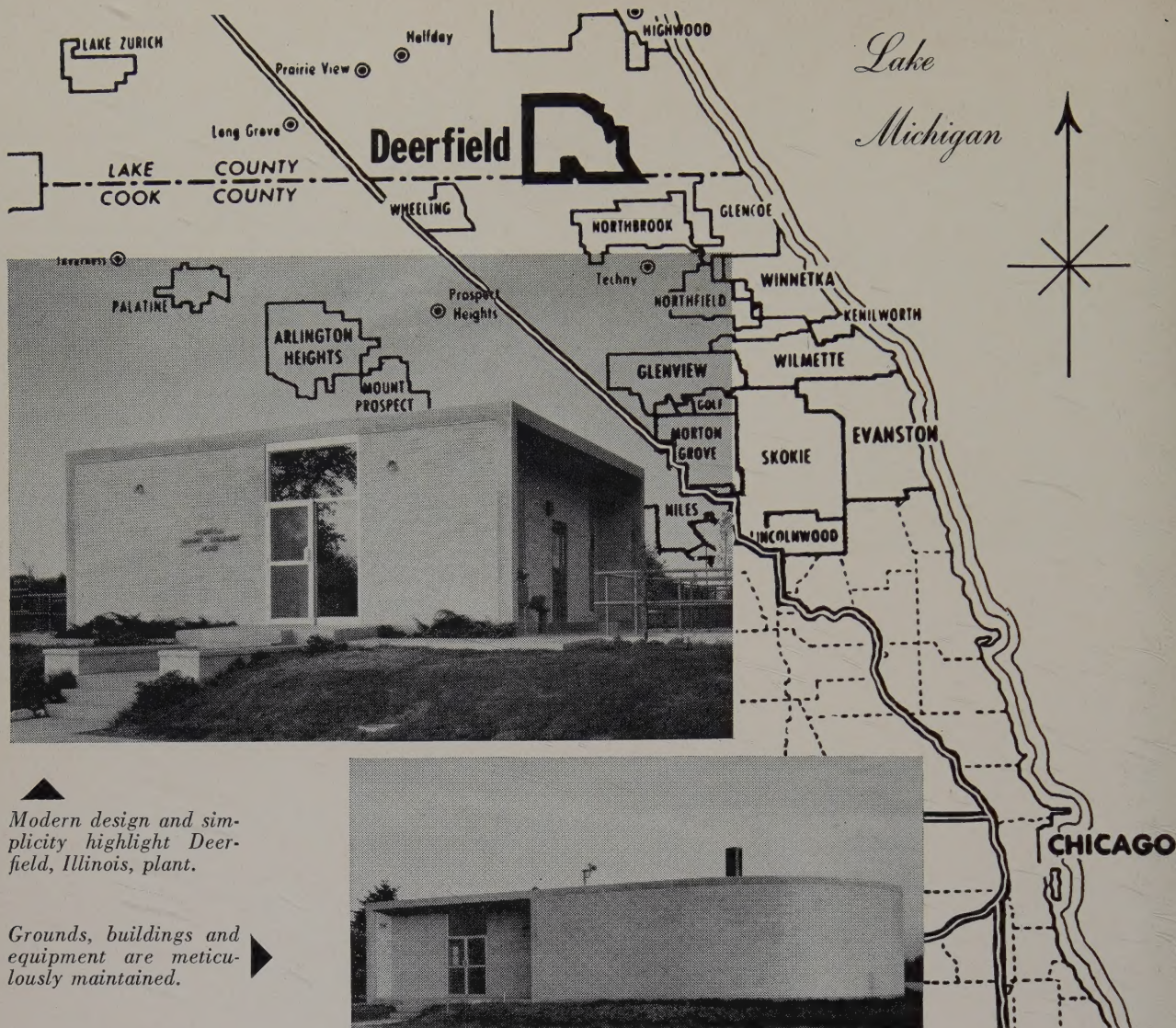
D. S. Magowan, I.S.P.E. President,
anticipates "Engineering's Great
Challenge"—the 1960's

The ILLINOIS ENGINEER is published monthly by the Illinois Society of Professional Engineers, Inc., at 817 Myers Building, Springfield, Illinois. Second-Class postage paid at Springfield, Illinois. Subscription rates are \$2.00 per year in advance to members of the Illinois Society of Professional Engineers, \$4.00 per year in advance to non-members in U.S.A. and its possessions, Canada, and Mexico. Foreign \$6.00. Single copies 40c. Special issues \$1.00.

THE ILLINOIS ENGINEER
OCTOBER, 1959
VOLUME XXXV, NO. 10



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AN I.S.P.E. ACTION CHART

(A resume' of the Action Report of the Budget and Finance Committee to the September 12, 1959, meeting of the Board of Direction.)

Society action and growth are portrayed in the maturing thinking of I.S.P.E. This in turn directly affects the use of funds shown in the basic elements illustrated here. A detailed long-range study made by the Treasurer shows that the net overhead expense per member can be expected to remain fairly constant. In general, then, any additional dues income can be applied to the step-up of activities. More meaningful activities bring more members, and the Society will be stimulated by the interest.

Questions Pending

When the Board members attend the November 7, 1959, meeting in Decatur, they will be asked to vote on the following three questions:

1. Do the Board members believe that the projection of activities and proposed dues schedule would be acceptable to the membership at this coming election?
2. Is the membership ready to support a program projected beyond that given in this report? The Committee can extend the projection if it is desired.
3. Should the Board seek membership authorization for a new dues schedule?

Elements in Society Action and Growth

Society actions that build the stature of the professional engineer are vividly apparent. The present base-line expenditures show that a relatively small addition to dues can produce a startling increase in these actions. Here are a few:

LEGISLATION

1959 mailings cost \$200—no budget item

\$1500/year needed by 1961

I.S.P.E.'s 1959 expenses were hidden. About 30 percent of the Executive Director's time for six months was required (\$1500), and a limited mailing of legislative bulletins for the session cost about \$200. It is desirable to send bulletins on some bills to all members; however, this costs about \$250 per mailing. Extended communications and also "off-year" action is needed to change the I.S.P.E. program so that it will be aggressive rather than defensive.

LEGAL COUNSEL

\$250 set up for 1959

\$1200/year needed by 1961

I.S.P.E. currently budgets \$250 a year for this item, but it needs about \$1200 a year so that it can put "backbone" into its work on Ethics and Practice and on Legislation. The attorney fees on one bill alone during the 1959 session were \$180. Committee members and Board members will give liberally of their time so long as they can see tangible results. A professional society cannot afford to run a bluff.

COMMUNICATIONS

1959 printing budget is \$900

Excluding Ill. Eng.)

\$2000/year needed

Member interest and membership development directly relate to well-planned contacts established by up-to-date releases, such as fees and salaries schedules, membership directories, professional policy guides and employment practices studies. The effectiveness of the Society would also be advanced by the publication of special interest releases, such as those of the functional sections. Informational leaflets pertaining to insurance programs, examination books and other service activities are essential.

FUNCTIONAL SECTIONS AND COMMITTEES

No 1959 budget provision

\$1000/year needed

A minimum fund is desired to assist in meeting some of the basic expenses of study groups and committees. An allocation of \$200/year per functional section can stimulate the work tremendously. At present the Society has functional groups for highway engineers, structural engineers, engineers in industry, and consulting engineers. Assistance to service committees is also important.

PUBLIC RELATIONS

\$200 spent in 1959—No budget item

\$1500/year needed for 1961

Public esteem of professional men is raised in proportion to its understanding of professional actions. Conferences to develop working relationships with men in industry (promoting "utilization" conferences, etc.), promoting award dinners, supporting recognition dinners, releasing stories to newspapers, etc., are all part of the public information program.

The projections herein given can be realized by strengthening the dues schedule as follows:

	PRESENT DUES					PROPOSED DUES				
	No.	National	State	Chapter	Total	National	State	Chapter	Total	
Member:										
National	1800	\$10	\$10	\$5	\$25	\$13	\$12	\$5	\$30	
State	280	...	10	5	15	...	15	5	20	
Affiliate	110	3	17	5	25	3	22	5	30	
I-T	380	4	6	..	10	6	7	2	15	
Junior	10	..	10	..	10	2	13	..	15	
Student	50	..	2	..	2	...	2	..	2	

The desired actions require an additional \$6,050, which the proposed dues schedule would net. In showing the projected activities it is assumed that the increased income from advertising for the ILLINOIS ENGINEER will be employed for the development of that publication.

TALK THIS OVER WITH YOUR CHAPTER REPRESENTATIVE!

UTILIZATION CONFERENCE TO BE DECEMBER 1 AND 2

WHAT?

A state wide conference for the effective utilization of engineers and scientists in the State of Illinois.

This conference is one of 26 similar meetings throughout the country which was suggested by and under the auspices of the President's Committee for Engineers and Scientists in the Office of Civil and Defense Mobilization, Washington, D. C.

The Illinois Society of Professional Engineers and the Northwestern Technological Institute are the State sponsors of this vital National project.

The objectives of the conference are to set forth policies and procedures to better utilize and conserve the brain power of engineers and scientists, and to motivate conferees to take such subsequent action in their firms or agencies as they deem appropriate to improve their own policies and procedures.

WHY?

When the Russians launched Sputnik I in the fall of 1957 President Eisenhower realized the necessity of re-evaluating the use of engineering and scientific man power to assure the most efficient and effective utilization of engineers and scientists in the national economy. A conference was held last year in Peoria which proved successful, and the conferees expressed the desirability for a follow-up conference in the fall of 1959. Maximum utilization of man power and brain power is good business anytime, anywhere and under any circumstances.

WHO?

The program is designed primarily for middle and top management personnel, those persons in an executive position to effect policy decisions relative to engineering and scientific man power. Participation is not restricted to personnel who hold engineering titles, but executives in administrative capacities are especially urged to attend.

WHEN?

Tuesday and Wednesday, Dec. 1 and 2, 1959.

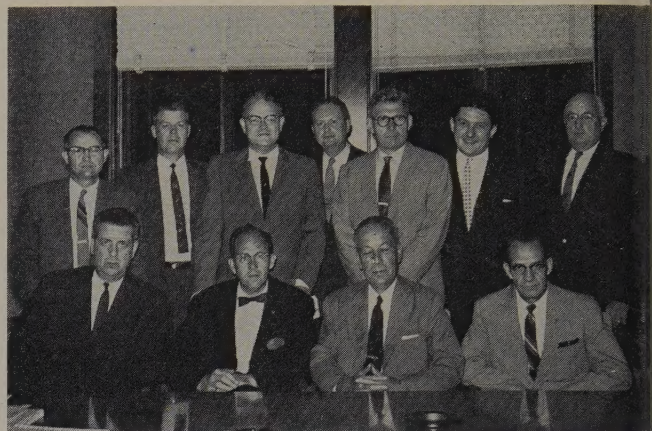
WHERE?

Edgewater Beach Hotel, Chicago, Illinois.

HOW?

The conference will be conducted in a series of panel sessions with renowned speakers from all fields of business and Governmental Agencies. The panel members will be leaders and specialists and competent to lead the discussions on subjects of current interest. Sufficient time will be reserved for question and answer periods with general discussions

from the floor. The success of the conference will be dependent upon maximum cooperation by individuals and organizations interested in promoting effective utilization of engineers and scientists in Illinois. Organizations interested in the problem are invited to join with ISPE and Northwestern in promoting and publicizing this project.



Front row, left to right, Dr. J. R. Bowman, Dr. H. V. Hawkins, Leo M. Spurling, Dean R. E. Gibbs. Back row, left to right, Kurt Schiffler, R. Bruce Foster, William Hooper, Nelson P. Bashor, Thomas Drennen, Carlos J. Dalgo and W. A. McCree.

A planning committee has held three meetings at the Northwestern Technological Institute to outline an interesting and beneficial program for the Utilization Conference. The members of this planning committee are as follows:

Dr. H. V. Hawkins, Assistant Director, Research Laboratory Division, Cook Electric Company, Oakton Avenue, Morton Grove, Illinois.

Dr. William G. Torpey, Consultant, Executive Office, Office of Civil and Defense Mobilization, Washington, D. C.

L. C. Goddard, Executive Director, Illinois Society of Professional Engineers, 817 Myers Building, Springfield, Illinois.

W. T. Hooper, Vice President, Illinois Society of Professional Engineers, 520 North Western Avenue, La Grange Forest, Illinois.

F. G. Seulbergeer, Assistant Dean, Technological Institute, Northwestern University, Evanston, Illinois.

Dr. John R. Bowman, Northwestern University, Evanston, Illinois.

Dean R. G. Owen, Illinois Institute of Technology, Chicago, Illinois.

Professor Leo C. Pigage, Department of Mechanical Engineering, University of Illinois, Urbana, Illinois.

R. E. Gibbs, Dean, College of Engineering, Bradley University, Peoria, Illinois.

Ralph R. Bartelsmeyer, Chief Highway Engineer, State of Illinois, State Office Building, Springfield, Illinois.

(Continued on Page 6)

THE ROAD AHEAD

By C. J. McLEAN, *National Director*

Speaker at a joint Recognition Dinner for newly registered engineers given by Capital, Central Illinois and Champaign County Chapters in Decatur on October 13.

One of the pleasant duties of a National Director is attending meetings like this one where Engineers meet in good fellowship, become better acquainted with each other, and exchange ideas concerning their profession.

This is an excellent idea to provide so pleasant an occasion to welcome these new men into the profession. They have met the minimum requirements for registration and now the State of Illinois has conferred on them the right to call themselves Professional Engineers. Time can only tell you young men how great a privilege that is. May I say to you, however, that *Duty* goes along with *Privilege*.

A truly professional man is both a good citizen and a good engineer. Whether you become a professional engineer in the truest sense of the word depends on how you act, how you perform your civic duties and how well you exhibit your engineering skills. The professional man performs his tasks with honesty and zeal, exhibits leadership ability, and applies the highest technical knowledge he possesses to his job regardless of size or compensation.

These ethical attributes were not given to you with your license. Much was taught you in the class room, but more was learned in the home, and the Church. Much more must be acquired as you progress along the road of your chosen career. It seems appropriate therefore to title these remarks "The Road Ahead."

You young men who have received your license as Professional Engineers have at last arrived at a point on the highway where you can at least start on your professional career.

You have invested many years of your life in preparing yourself to serve industry, your nation and mankind as a registered, professional engineer. The fact that you have been successful in meeting the rigid requirements for registration in your state is proof that, so far as engineering is concerned, you are among those devoted to the advancement of the engineering profession.

Engineers in the Highway Department have not only done a fine job in building good roads on which we travel, but they have provided an excellent system of marking so that if one uses reasonable care and follows the signs he can arrive at his destination safely and with a minimum of detours. It is a long road that has no turning and you should look for signposts along life's highway as guides in order to be able to arrive at your planned, ultimate destination.

First, what is your planned destination as a Professional Engineer? Where are you headed? What is your goal?

Second, how fast do you expect to achieve it?

Third, are there any reliable and safe by-pass or short-cut roads to this goal which you should be looking for?



New Professional Engineers from Capital Chapter are: Front row, left to right—Ralph C. Hahn, Hugh G. Brady, Jr., Miles E. Byers, Francisco Valdes. Back row, left to right—John C. Casson, Herschel Cudworth and Nathan Wilcox.

In the past your progress has been largely a function of time. You could not start to school until you had reached that certain age when they would admit you into the kindergarten. Then came grade school and on through high school where you found no accelerating lanes and you moved with the traffic year after year advancing one grade at a time. Somewhere along the way you were introduced to the idea of becoming an engineer. This was the first faint goal you set for yourself. You entered college to be trained as one, but many of you did not see clearly what an engineering career meant. Even College could not be hustled and most of you probably settled for a minimum of four years. Graduation finally arrived and a milestone in your career was achieved.

After graduation your future ahead was probably not very clear beyond the first job that you were able to secure. There was now a distinct difference however. Time was no longer a factor in your success. As young engineers you could now forge ahead on your merits. You were champing at the bit to prove that you were now professional men ready to solve the World's engineering problems. But were you really Professional Engineers? Around the first corner you turned, the first signboard appeared which read "Register as a Professional Engineer." This marked the first possible detour or by-pass. You may have asked, "Why should I register as a Professional Engineer, I have a degree,

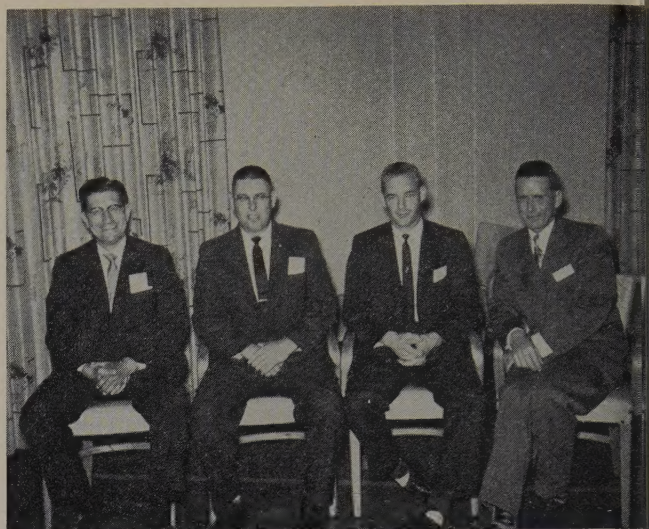
I have a job and my employer apparently is not concerned about this matter of registration. Should I avoid this by-pass road which looks a little tough and rough and keep on the straightaway ahead? What can I accomplish if I take this side road and who really cares whether I am registered or not?"

Speaking of side roads, I am reminded of an experience I had several years ago in driving in northern Alabama. The map indicated that we must travel north-erly for several miles to a point where the road turned sharply to the right and then back southerly almost parallel to the first road. On the map this looked like a strange way to route a highway. Also indicated on the map was a secondary side road cutting across from one highway to the other. This would apparently save us several miles of driving. We stopped at a small country store and inquired about the crossroad and a local man told us it was passable and that he lived along this road and if we were going that way would like a ride home. As he climbed into the car he said, "You know if you take this road you will have to climb some mountains." We assured him we didn't mind. Well, he was right, we did have to climb some mountains but the view was worth it, and after several miles of beautiful scenery we eventually arrived back on the main highway. We had saved about 20 miles of travel. Sometimes these side roads can be a little rugged but they often provide a view which is a welcome diversion from a main highway.

Let's take a little look ahead along your first by-pass road. Undoubtedly *you* did so because you are here tonight to be honored at this recognition dinner. You decided to heed this "Registration" signboard. You detoured to study for the license examination, and now you have achieved this major step in your development as a Professional Engineer by obtaining your registration.

The far look into the future reveals that some day if you apply yourself to your work and are ambitious, your organization may be looking at you as a possible young engineer for advancement. That day may come sooner than you think. Your first step up the ladder may not require you to be registered. Usually, however, those responsible for engineering personnel will look beyond the immediate job assignment. Ultimately there may be a position to be filled which will require you to be registered to be qualified. Before you are started up the ladder, therefore, your Superiors may ask the question "If we advance this Engineer now, has he the ability and qualifications required, including registration as a Professional Engineer, which will make him a potential candidate for some top position in the organization?" So you see it could be that even the first step up the ladder may be denied that Engineer who has not observed this first signpost on his road of

progress toward the goal of his career. There is a lasting satisfaction in being able to say "I am a Registered Professional Engineer."



New Professional Engineers from Central Illinois Chapter are: Left to right—William F. Blank, Harold March, William E. Snyder and Ola Svennes.

In the September issue of the *American Engineer* is reported that the Bay State Abrasive Products Company of Westboro, Massachusetts, is the latest industrial firm to announce new policies restricting the title "Engineer" to legally qualified personnel. The term "Engineer" is to be omitted from all titles of company employees unless they are registered or have made application for registration. If the employee fails to pass the State examination, the term "engineer" is dropped from his title. That seems like hard medicine to take but only by such actions will the Engineer be raised to his proper place, a professional man.

(Continued on Page 8)



New Professional Engineers from Champaign County Chapter are: Front row, left to right—Dale E. Francis, Charles M. Petry, Govindappa Nallakrishnan, Jack Butler, Walter E. Sterner. Back row, left to right—H. Glen Rogers, George W. Zuurbier, Jack F. Bell, Benjamin A. Jones, Robert E. Fulton, Arthur J. Muehling, Carl Lawrence and John Stevenson, Jr.

A VISIT TO NATIONAL HEADQUARTERS

By L. C. GODDARD

In 1934 a group of engineers from four East Coast states saw the need for a national engineering society to concentrate its efforts wholly to the professional advancement of the engineer. From this nucleus the National Society of Professional Engineers was born, and within a few weeks the Illinois Society of Professional Engineers became the fifth state society to join N.S.P.E. in a dynamic program which today numbers 50 state affiliates and more than 50,000 individual members.

What is N.S.P.E. and how does it fit into your professional life? The National Society of Professional Engineers is one of three important levels of a "grass roots" organization which begins with your local chapter of I.S.P.E., the Illinois Society of Professional Engineers which functions at the state level, and N.S.P.E. which represents the engineer in national affairs.

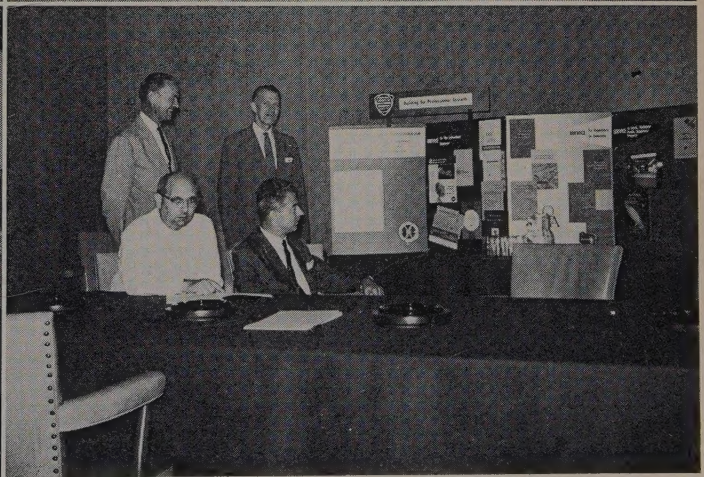
This writer had the opportunity to visit national headquarters in September and to observe its day to day operations. The report of observations made during this visit should give Illinois members a better insight of the importance of your National Society.

The National headquarters is located at 2029 K Street N.W. in Washington, D. C., a few blocks from

the White House on Pennsylvania Avenue and within a short distance to buildings housing various Governmental agencies. A staff of some thirty assistants and clerical personnel is headed by personable, soft-spoken Paul Robbins, P. E., Executive Director of N.S.P.E. Robbins coordinates the activities of several departments within the headquarters and perhaps his most important contribution are his timely appearances before committees of Congress to convincingly outline the viewpoints of the engineering profession on pending legislation. (For a detailed account of this activity, see the October issue of *The American Engineer*, p. 19.)

Robbins has welded together a very effective staff which includes Counsel Milton Lynch, Office Manager Richard Ford, Membership Representative Michael Blew, Charles Ritchie, Assistant to the Executive Director, John McCullough, Business Manager and latest addition to the staff, and Ken Trombley, Editor of *The American Engineer* and Public Relations Director. Working under each of these staff heads is a force of very competent assistants, secretaries, and clerks.

Milt Lunch keeps abreast of legislative developments and is responsible for the coordination of employment practices problems of the several State Societies. His department has charge of providing material for the



Upper left—John McCullough and Paul Robbins.
Lower left—Membership Department staff.

Upper right—Receptionist Helen Kusack.
Lower right—Standing, McCullough and Robbins;
seated, Milton Lunch and Richard Ford.

Legislative Bulletin and the Employment Practices Newsletter. On the day of my arrival in Washington, Lunch made a flying trip to North Carolina to attend a meeting relative to an election for certification of an engineering union. He was back in Washington the following day with a full report of the problem and while there had advanced ideas during the meeting which were undoubtedly of great benefit to the engineers concerned. Such junkets are not unusual with Lunch—he has a habit of making himself available in any area where his counsel will be helpful to the profession. Milt is assuming new responsibilities in the field of engineering ethics.

Dick Ford seems to be most competent in coordinating the 1,001 problems related to the housekeeping functions of the office. A primary responsibility is keeping up-to-date records of the fast-expanding membership. It was amazing to observe the accurate and current information kept on each individual member from fifty different state organizations.

Trombley's *American Engineer* staff had just moved to a larger office area in the headquarters building to provide better facilities for an expanding *American Engineer*. The timely articles and new format are the best evidence of the efficiency of Ken Trombley and the editorial staff of the magazine.

Charles Ritchie assumes the duties of "trouble shooter" and prepares for the many committee meetings, regional Board meetings and the annual N.S.P.E. convention. Plans are being considered for regional representatives to assist the Executive Director in the complex problems of various State Societies. Such a field representative would be particularly helpful in the smaller State Societies which are unable to retain a full-time executive.

What do these activities of the National headquarters mean to the individual engineer?

1. It provides constant representation before committees of Congress, Federal agencies, and before the U. S. Supreme Court on matters of interest to the engineering profession.
2. It provides greater cooperation and understanding between business executives and the engineering profession.
3. Public relations programs in the nature of Engineers Week and other projects enhance the prestige of the engineer with the public.
4. Constant vigilance on labor relations problems, ethics problems, employment practices and economic conditions assures the individual engineer of a freedom of choice on the question of unionization of employees. Higher standards of ethics implements the prestige of the profession, gains greater respect for the engineer from the public, employers, and fellow engineers.
5. The N.S.P.E. promotes engineering registration as a minimum standard of qualification for engineers



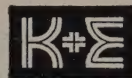
"Paragon:

a model or pattern:
a type of excellence
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Webster's
New International Dictionary

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and constantly coordinates and advises with the State Societies in endeavoring to achieve adoption to strong and uniform state registration laws.

W. A. McCree, Engineer Employee Training and Assignment, State of Illinois, Division of Highways, State Office Building, Springfield, Illinois.

Carlos Hidalgo, Chairman, Employment Practices Committee, Illinois Society of Professional Engineers, 311 Lonview, Waukegan, Illinois.

Nelson P. Bashor, Director, Electrical Controls Division, W. F. & John Barnes Co., 301 S. Water Street, Rockford, Illinois.

William C. Freeman, Sargent & Lundy, 140 S. Dearborn Street, Chicago 3, Illinois.

Kurt Schiffleger, Sundstrand Corp. Aviation Division, 2421 Eleventh Street, Rockford, Illinois.

R. Bruce Foster, Sundstrand Corp., 2531 Eleventh Street, Rockford, Illinois.

Leo M. Spurling, Illinois Bell Telephone Co., 208 Washington, Chicago, Illinois.

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Registration of Engineers in the State of Illinois and in other States did not just happen. Some States have had registration laws going back many years. Structural Engineers have been registered in Illinois since 1919. The Professional Engineering License Law in this State, however, has been in existence only about 15 years, it was not achieved without considerable effort and struggle on the part of a group of dedicated Engineers largely members of the Illinois Society of Professional Engineers.

Four State Engineering Societies in New York, New Jersey, Connecticut and Pennsylvania joined together in 1934 to form the National Society of Professional Engineers whose primary objectives were professional in character rather than technical and registration was required for membership. They believed that public recognition of the profession of Engineering could be advanced more rapidly by registration and that adequate compensation and fair working conditions could only be achieved by such recognition. They also believe that Unity in the profession and improved professional standards could best be fostered by a Professional Engineering Society. Illinois in 1934 was the first State Society to join with the original four States in this National Society. NSPE now has over 50 member State Societies and a total of over 50,000 members.

The next signpost I see ahead for you, therefore, is "Engineering Society Affiliation." Engineers before you have achieved much by organized efforts. Will you newcomers in the profession carry on as some of us oldsters shuffle off the stage? If you don't, the gains of a generation could be lost. "What will it cost me?" you ask. "Can I afford it?" Yes, it will cost you something for dues and some effort and time to participate in society affairs. As a long time member of several societies, I can say to you, however, that you cannot afford *not* to join your technical and professional societies. You have too much at stake. Your education cost you at least \$8,000 and you lost in earning capacity while in college or university not less than \$12,000. Your investment in a college degree capitalized at approximately \$20,000 will last you about 40 years if you retire at age 65. That's a \$500 per year write-off if you don't count the interest. You did not count that too high a cost to pay to learn to be a professional engineer when you entered college. Isn't it worth at least 10 percent of that annual cost or about \$50 yearly to identify yourself with your fellow Engineers and to help keep your professional career dynamic and progressive?

In NSPE today, you automatically become a member of your local chapter and of your state society. These groups are completely autonomous. They carry on activities in their sphere of influence and initiate and implement projects which become the programs of the national organization.

It goes without saying, of course, that the opportunities for professional association provided by this thinned organization offer numerous occasions for the exchange of ideas and for information for the mutual benefit of all.

From 300 to 400 members of this Illinois Society are active on Boards and committees. Many of the same Engineers are busy on activities in technical and other societies. Busy men taking on many tasks for the good of the profession and their fellow engineers. They are, incidentally, helping themselves too by developing their own leadership ability. These chapters represented here have in the past and are now providing outstanding leadership in the Illinois Society of Professional Engineers. We really need many more such dedicated engineers. They give time and money, and travel many miles in these duties. Their reward is the satisfaction of having a part in the challenging and interesting phase of the society and in stimulating their own professional growth.

The next signpost I see in the distance for you young men is lettered "Increased Technical Knowledge." The science on which the profession of engineering is founded is advancing so rapidly that if you don't advance with it you will actually go backward. You just can't stand still. As young engineers you should read the publications of your technical society. That is the best source of new technical knowledge. It usually appears here first before it is put in the text books. Subscribe for and read at least one technical periodical. Take special refresher and training courses whenever available.

The question was recently asked "What will the first U. S. space satellite crew members have in common?" The answer was "An Engineering degree or its equivalent in training." That's a challenge enough to make any young American want to study engineering. There are so many new technical ideas bombarding our lives today that men of my age don't even understand the language of you young engineers. Walk into a progressive office where engineers are employed and the chances are 2 to 1 that the first bulletin board you see will have announcements of refresher engineering courses or after-hour classes in subjects of value to engineers. If you work for such an organization take advantage of such opportunities.

That's really too tough a road you say? "Let's go back on the main highway where the going is smooth. Surely advancement in my career doesn't require this of me." Yes, it does if you want to reach the goal you set for yourself as a leader in your profession. I assure all of you set no less a goal than this.

If the engineer is to grasp fully the opportunities open to him in both the technical and the management levels, he must not only increase his technical competence

(Continued on Page 10)

EVERYONE KNOWS HIM

If he writes a letter, he's too wordy and long.
 If he writes a postcard, it's too short and cheap.
 If he doesn't send notices, he's worthless.
 If he keeps everyone informed, he's mailing too much.
 If he attends committee meetings, he's butting in.
 If he stays away he's a shirker and a slacker.
 If he duns the members for dues, he's insulting.
 If he fails to collect dues, he's slipping.
 If he asks for advice, he's not competent.
 If he doesn't ask for advice, he's a know-it-all.
 If he writes complete reports, they're too long.
 If he condenses them, they're incomplete.
 If he reports mistakes he's too big for his britches.
 If he overlooks them, he's not doing his job.
 If he talks on a subject, he's trying to run things.
 If he keeps silent, he's completely lost interest.
 If he's out of the office, he's running around.
 If he's in the office, he's laying around.
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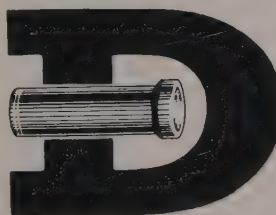
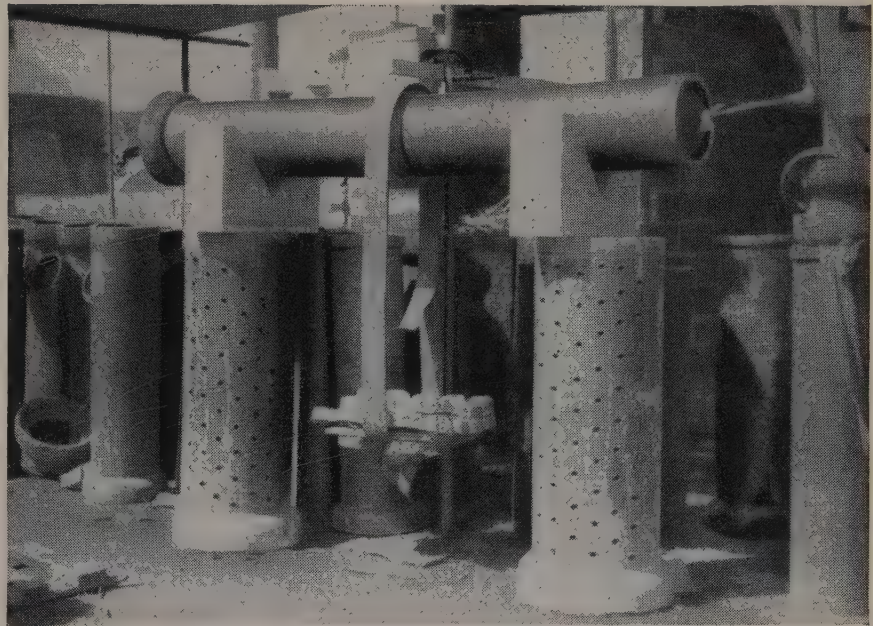
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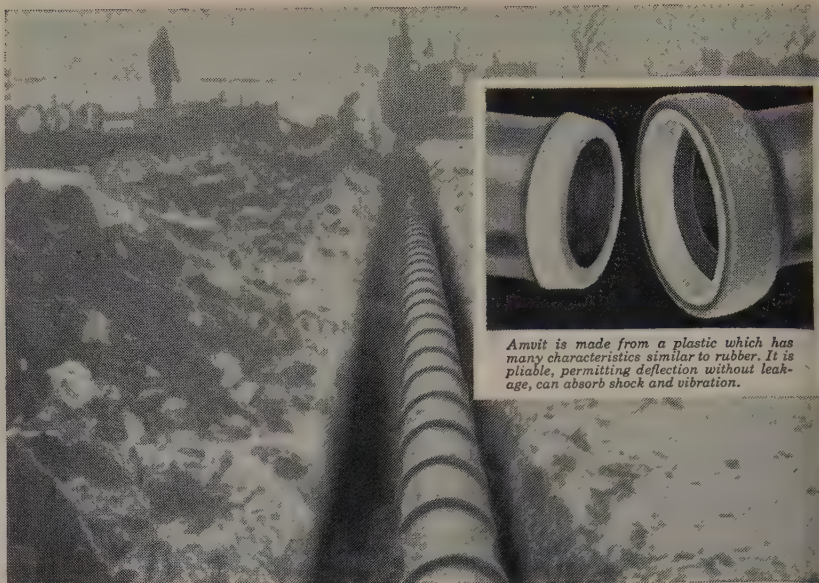
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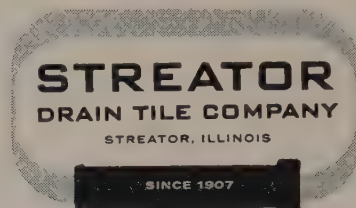
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tence, but he must understand and assume a measure of responsibility for the social implications of his work

Did you ever take a look at "Who's Who in Engineering"? These men have made the grade. Notice how many have advanced degrees. Invariably they were active in several engineering societies. They did not count the cost too high. These things helped to make them better and more successful engineers so they became recognized and honored by their fellow engineers. I've seen many fine young engineers who did not see fit to register. They became so engrossed in the technology of their own job that registration was just too bothersome a venture. Engineering Society affiliation to them was a time consuming annoyance, and part time study . . . an unnecessary burden.

What was the result? Did they achieve their goal in life as Engineers? Yes, in part they did. They had a job and became expert in the one engineering specialty they were doing. They enjoyed their work and developed a high, technical, skill but they failed to broaden their minds enough to advance to top leadership positions in their organization. Their circle of friends was limited to their office associates and their horizon was definitely limited to a very narrow portion of the broad field of engineering. The better paying executive jobs were being filled with ambitious younger men willing to learn, who utilized their association with

other engineers to broaden their vision and to improve their leadership capabilities.

The road ahead can be an easy street with a steady climb to some degree of success in the profession of Engineering. If you would scale the heights of leadership and make your contribution to your profession, don't miss the signposts along the highway that mark the byways that lead to:

1. Registration as a Professional Engineer.
2. Engineering Society Affiliation.
3. Increased Technical knowledge.

When registration of professional engineers becomes more nearly universal and engineers adhere faithfully to the highest, established, ethical, standards which are self-imposed by the profession, then the public will recognize us as professionals in a manner it does not now recognize us. Engineering incomes then will be adequate and well earned and increases in salary be granted in recognition of our competence as Engineers and will not be obtained as a right demanded under threat of strike or work stoppage as some would like to have us do.

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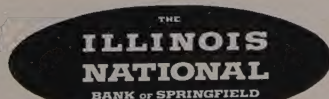
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